NOAA Office of Ocean Exploration Quick Look Report

Expedition Title: __GalAPAGoS 2005_____

Results (please check all disciplines in which this cruise collected data)	**Details** (please describe any novel discoveries in the discipline, answers such as "possible, awaiting data analysis" and "no apparent discoveries" are acceptable)
Bathymetric Mapping x Yes ☐ No	EM-300 Survey of the GSC from 89.5°W – 94.5°W and of the EPR Crest 11° - 9°N (during transit). DSL-120a sidescan backscatter, phase bathymetry, and SM-2000 bathy for GSC ridge crest, 89.5°W – 94.5°W.
New Species Discovered ☐ Yes ☐ No possibly	Unknown. Fauna were imaged but not sampled.
Bio-prospecting ☐ Yes x No	No apparent discoveries.
Habitat Range Extended x Yes ☐ No	Riftia tubeworms observed much farther west (at Navidad vents 94°04'W) than previously. Other vent fauna (clams, mussels, crabs, serpulids) also seen at Penguinas and Igunas vents (91°57' – 53'W), farther west than previously.
Chemical Processes x Yes ☐ No	Possibly, awaiting sample analysis. Low H_2S and high Fe may explain sparse vent fauna observed.
Biological Processes x Yes ☐ No	Vent communities were few and isolated; hot spot influence apparently is an obstacle to larva and gene dispersal along GSC.
Geologic Processes xYes ☐ No	Volcanism is episodic and effusion rates are low in general. The bulk of the ridge exhibits waning hydrothermal venting related to a pulse of magmatism 10's – 100's years ago. Non-steady state likely due to hotspot pulses.
Physical Processes x Yes ☐ No	New data about bottom current directions was obtained from plume data and medea images.
Sub/ROV/AUV Dives x Yes ☐ No	DSC 120a with SM-2000 scanning sonar; Medea as stand-alone camera sled with T, light scattering, and chemical sensors.
New Technology x Yes ☐ No	First use of Medea as a stand alone camera sled w/out Jason. First full integration of DSC-120a with SM-2000. First use of plume sensors on Medea.
Maritime Cultural Heritage ☐ Yes x No	No discoveries.
Outreach x Yes ☐ No	Media call on 2006/01/05 between PIs, Fred Gorell, and media contacts. Web coordination, daily web logs and "Ask an Explorer." UCSB educational videos shot during expedition.
Students Involved x Yes ☐ No	Six graduate students and six undergraduate students from University of California at Santa Barbara (UCSB). One graduate student from University of South Carolina.
Multidisciplinary xYes ☐ No	Rachel Haymon, Ken Macdonald (UCSB) and Scott White (USC) studying the geology of the ridge and its relationship to the hydrothermal systems. Ed Baker, Joe Resing and PMEL group studying plume distribution and chemistry. Rachel Haymon and students studying microbes in plumes. Taylor Heyl and Tim Shank (WHOI) performing biological photoanalysis.
Exploration of New Regions x Yes ☐ No	Explored the Galapagos Spreading Center (GSC) from 89.5°W to 94.5°W
